STRUCTURES 10A, C & D

These three structures are reinforced concrete, gated spillways with the discharge of each controlled by cable operated, vertical lift gates. Operation of the gates is manually controlled, and the gates are operated in accordance with the seasonal operational criteria. The structures are located in Levee 39 on the southwest perimeter of Conservation Area No. 1, about 15 miles west of Boca Raton.

PURPOSE

These three structures provide the principal means of discharge from Conservation Area No. 1 (relatively minor discharges can also be made by S-39). Structures S-10A, C and D also provide the principal sources of gravity flow into Conservation Area No. 2.

OPERATING CRITERIA

These structures are operated by the U.S. Corps of Engineers to maintain the Regulation Schedule for Conservation Area No. 1, and when benefits from releases from Conservation Area No. 1 are greater than those from storage.

Instructions from the U.S. Corps of Engineers by letter of 10 June 82: When full gate opening is ordered, open gate 3 feet out of water.

FLOOD DISCHARGE CHARACTERISTICS

	Design	Standard Project Flood
Discharge Rate	14,800 cfs	4680 cfs
	100 % SPF	100 % SPF
Headwater Elevation	17.3 feet	24.4 feet
Tailwater Elevation	16.4 feet	2.4 to 8.5 feet
Type Discharge	submerged uncontrolled	free controlled

DESCRIPTION OF STRUCTURE

Type: Fixed crest, reinforced concrete gated spillway

Weir Crest

Net Length 100.0 feet (for each of these structures)

Elevation 10.0 feet

Service bridge elevation 23.1 feet

Water level elevation which will by-pass structure 23" feet

Gates

Number 4 (for each of these structures)

Size 8.0 ft. high X 25.7 ft. wide

Type vertical lift

Bottom elevation of gates full open 19.5 feet Normal

Top elevation of gates full closed 18.0 feet

Control Manual

Lifting mechanism

Normal power source gasoline

Emergency power source manual

Type hoist vehicle with power take-off, gear connected to cables.

ACCESS: From S-39 via access road on top of L-39

HYDRAULIC & HYDROLOGIC MEASUREMENTS

Water Level Telemetry and on-site upstream & downstream recorder at each structure

Gate Position Recorder None

DEWATERING FACILITIES

Storage Clewiston Office of the U.S. Corps of Engineers

Type Timber needles and steel needle beams

Size & number (per bay)

Upstream & Downstream

Needles 54 @ 6" X 6" X 13'-6" long

2 @ 2" X 6" X 13'-6" long

Needle Beams 14WF84, 26'-10" long